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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,034	06/23/2003	Norio Kimura	36701.00077	9537
30256	7590	12/09/2004	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P			ROSE, ROBERT A	
600 HANSEN WAY			ART UNIT	
PALO ALTO, CA 94304-1043			PAPER NUMBER	
			3723	
DATE MAILED: 12/09/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/602,034

**Applicant(s)**

KIMURA ET AL.

**Examiner**

Robert Rose

**Art Unit**

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-22 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                              |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/23/03</u> . | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. Receipt is acknowledged of Applicant's Prior Art Statement, filed June 23, 2003.
2. Claims 1-25 are presented for examination.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, and 4-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bajaj et al. Bajaj et al disclose a chemical mechanical polishing method comprising all of the method steps set forth in Applicant's claims above. The first step of determining vertical position of the top surface of the pad may be performed by visual inspection by the operator, of the pad surface, with adjustment of the window height to bring the window to about the same vertical position before polishing of a wafer. With regard to claim 5, note the use of a slurry-phobic substance at column 3, lines 60-63 of Bajaj et al.
5. Claims 1-2, 4, 23, and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Treur et al. Treur et al et al disclose a chemical mechanical polishing method comprising all of the method steps set forth in Applicant's claims above. The first step of determining vertical position of the top surface of the pad may be performed by visual inspection of the pad surface by the operator, with adjustment of the window height to bring the window to about the same vertical position before polishing of a

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wafer. With regard to apparatus claims 23, and 25, note optical window(53) coupled to platen(4) by way of height adjusting screws(57).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, and 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treur et al in view of Cesna et al. To provide a drain channel in the platen of Treur et al to remove slurry from the vicinity of the optical window, for preventing interference with the optical signal, would have been obvious in view of Cesna et al.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treur in view of Sandhu et al. To provide plural windows in the pad in the method of Treur et al, in order to measure the wafer at several locations for better control of the polishing, would have been obvious in view of Sandhu et al.

9. Claims 8-22 are allowed.

10. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bibby, Jr. et al, Tolles, and Akino(Japan 403234467) are cited to show other cmp apparatus having polishing pads with optical windows coupled to the

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underlying platen. Sevilla et al is cited to show a polishing pad with endpoint detection port and integral drainage channel in fluid connection with the detection port.

12. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (571) 272-4494.

Rr

December 6, 2004.

Robert Rose  
Primary Examiner  
Art Unit 3723

A handwritten signature in black ink, appearing to read 'Robert Rose', is written over the printed name and title.